DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

4H11
Revision 17
HILLER
UH-12E
UH-12E-L
(Army OH-23G)
(Army H-23F)
March 13, 2009

TYPE CERTIFICATE DATA SHEET NO. 4H11

This data sheet which is a part of type certificate No. 4H11 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder:	Siam Hiller Holdings, Inc. 925 M. Street Firebaugh, California 93622-2234
Type Certification Ownership Records:	Hiller Aircraft Corporation transferred TC 4H11 to Fairchild Industries, Inc. on 10/2/1959
	Fairchild Industries, Inc. transferred TC 4H11 to Heli-Parts, Inc. on 12/28/1972
	Heli-Parts, Inc. transferred TC 4H11 to Hiller Aviation on 12/28/1972
	Hiller Aviation transferred TC 4H11 to Rogerson Aircraft Corporation on 6/26/1984
	Rogerson Aircraft Corporation transferred TC 4H11 to Hiller Helicopters, a wholly owned subsidiary of Rogerson Aircraft Corporation on 6/29/1984
	Hiller Helicopters, a wholly owned subsidiary of Rogerson Aircraft Corporation transferred TC 4H11 to Rogerson Hiller Corporation on 11/14/1985
	Rogerson Hiller Corporation transferred TC 4H11 to Siam Hiller Holdings, Inc. on 7/14/1994

I. Model UH-12E, Approved January 6, 1959 (Army OH-23G and H-23F)

Engine	Lycoming VO-540-A1A, VO-540-B1A, VO-540-B1D, VO-540-B1E, VO-540-C1A, VO-540-C1B, VO-540-B2D, VO-540-C2A, VO-540-B2E, VO-540-C2B, or VO-540-C2C. See Engine TCDS E-304 for more details. (Refer to appropriate Hiller Service Bulletin for requirements for interchanging engine models.)
Fuel	100/100 Low Lead minimum grade aviation gasoline

Engine Limits for all Operations Maximum rpm: 3200 (305 hp). (All engines)

Maximum manifold pressure:
VO-540-A1A, -B1A Full Throttle
VO-540-B1D, -B1E, -B2D, -B2E 27.2 in. Hg
VO-540-C1A, -C1B, -C2A, -C2C 25.2 in. Hg

Rotor Limits and Engine Operating Speeds

Power Off (Rotor Tach.)	Power On (Engine Tach.)
Maximum 395 rpm	Maximum 3200 rpm
Minimum 314 rpm	Minimum (sea level to 5000 ft.) 2900 rpm (Above 5000 ft, increase minimum rpm by 20 rpm for each additional 1000 ft of altitude

(See NOTE 13 for UH-12E with Main Rotor Blades P/N 53200-03)

Airspeed Limits

Configuration	V_{NE} (IAS)
Skid Gear	96 mph (83 knots)
Float Gear	86 mph (74 knots)

The above airspeed applies from sea level to 5000 ft. Decrease V_{NE} 2.5 mph (2.2 knots) per 1000 ft of altitude above 5000 ft. For limits with accessories installed, see the FAA-Approved Rotorcraft Flight Manual.
(See NOTE 6 for 4-place configurations)

Altitude Limits

Avoid operational areas as shown in approved Flight Manual.

C.G. Range (Longitudinal)

Configuration	
Skid Gear	Sta. (79.5) to (84.8)
Float Gear	Sta. (81.0) to (84.8)

For range with accessories installed see the FAA-Approved Rotorcraft Flight Manual.
(See NOTE 6 for 4-place configuration)
(See NOTE 13 for UH-12E with Main Rotor Blades P/N 53200-03)

Datum

107.25 in. fwd of tail boom-fuselage upper mounting face

C.G. Range (Lateral)

Left of helicopter center line, 4.83 in.
Right of helicopter center line, 1.85 in.
(See NOTE 13 for UH-12E with Main Rotor Blades P/N 53200-03)

Leveling Means

Top face of flanges under seat

Maximum Weight

2750 lb (See NOTE 7 or NOTE 13 for increased maximum weight)

Number of Seats

3 (53) (See NOTE 6 for 4-place configuration)

Maximum Baggage

See loading instructions in Flight Manual

Fuel Capacity

Total 46, 66, or 86 gal. One main tank 46 gal. (82.9). One or two auxiliary tanks installed per Hiller Service Bulletin 2008, 20 gal. each (85.8).
See NOTE 1 for unusable fuel data.

Oil Capacity

9.2 qt (94), or 12.3 qt (94) with auxiliary fuel tanks installed.

Other Operating Limitations — FAA-Approved Rotorcraft Flight Manual

Rotor Blade Movements — (Measured with respect to the mast)
(Note: When the mast is vertical, the helicopter is 1° nose up)

MainBlades:
- Collective Pitch — Low setting +1.0°, total travel 10.5° (Measured at Retention Plate) (Low setting is determined as the lowest which will preclude overspeeding in autorotation)
- Teetering — Control rotor ±12°, Main Rotor ±9°

Wobble Plate:
- Lateral — 7.7° to 8.3°
- Longitudinal — Fwd. 8.0° to 8.5°, Aft 9.0° to 9.2°

Control Blades:
- Neutral — ±9° incidence (Rotor hub and wobble plate perpendicular to mast)

Anti-Torque Rotor Blades Flapping: +17° to -17°

Collective Pitch

T.R. Gearbox P/N	Travel (degrees)
25200	+15 to –3
25200-3	+16 to -4
25200-5	+20 to -4

Horizontal Stabilizer

Configuration(With helicopter level)	
Skid Gear	0°
Float Gear	-10°

Float Pressure Differential — 8.0 psi maximum
(See NOTE 6 for 4-place configuration)

Serial Nos. Eligible — Model UH-12E; 942, 954, 2001 through 2166, 2172 through 2229, 2233 through 2241,2246 through 2248, 2253 through 2255, 2257 through 2282, 2286 through 2292, 2294 through 2306, 2309 through 2499, 2518, 5001 and up and S/N HA3001 through HA3999 for aircraft built from spare and surplus parts by Hiller Aviation. (See NOTE 12 for additional serial numbers.)

Army OH-23G; 1439 through 1760 and 1762 through 1876.

Army H-23F; 2167 through 2171, 2230 through 2232, 2242 through 2245, 2249 through 2252, 2256, 2283 through 2285, 2293, 2307, and 2308.

In order for individual OH-23G or H-23F helicopters procured under military cognizance and not having been issued a Form FAA970 "Conformity Certificate Military Aircraft", to be eligible for a Standard Airworthiness Certificate as a Model UH-12E, it must be determined in each case that the helicopter conforms to the Model UH-12E type design per CAR 1.67(d) or FAR 21.183(d).

Certification basis — CAR 6 dated December 20, 1956, including Amendments 6-1 and 6-2, Voluntary compliance with Amendment 6-3 has been established. Type Certificate 4H11 issued January 6, 1959. Date of Application for Type Certificate December 13, 1957.

Production Basis

None. Before original airworthiness certification of each aircraft manufactured subsequent to April 23, 2003, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics. In the event of an application for a standard airworthiness certificate or, if an applicant intends to produce new aircraft under 14 CFR § 21.183 (d), and the applicant is manufacturing, building, or assembling to another person's type certificate, the applicant must provide written evidence of permission from the type certificate holder. Conduct of such activity without written evidence of permission may be a violation of 49 U.S.C. § 44704(a)(3).

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification basis) must be installed in the helicopter for certification. Hiller Report 59-30, "Model UH-12E Master Equipment List," contains a list of all required equipment that must be installed as well as optional equipment installations approved by FAA. (See NOTE 6 for 4-place configuration.)

II. Model UH-12E-L, Approved September 18, 1963

Engine

Lycoming VO-540-C2A. See Engine TCDS E-304 for more details.

Fuel

100/100 Low Lead minimum grade aviation gasoline

Engine Limits for all Operations

Maximum rpm: 3200 (305 hp)
Maximum manifold pressure: 26.0 in. Hg at sea level varying linearly to 25.2 in. Hg at 3000 ft.

Rotor Limits and Engine Operating Speeds

Power Off (Rotor Tach.)	Power On (Engine Tach.)
Maximum 370 rpm	Maximum 3200 rpm
Minimum 285 rpm	Minimum (S.L. to 10,000 ft.) 3000 rpm (Above 10,000 ft, increase minimum rpm by 10 rpm for each additional 1000 ft of altitude

Airspeed Limits

Configuration	V_{NE} (IAS)
Skid Gear	106 mph (92 knots)

The above airspeed applies from sea level to 6000 ft. Decreases V_{NE} 3 mph (2.6 knots) per 1000 ft of altitude above 6000 ft. (For limits with accessories see FAA-Approved Rotorcraft Flight Manual)

Altitude Limits

FAA-Approved Rotorcraft Flight Manual

C.G. range (Longitudinal)

Configuration	
Skid Gear	Sta. (79.5) to (84.8)

(For limits with accessories see FAA-Approved Rotorcraft Flight Manual.)

Datum 107.25 in. fwd of tail boom-fuselage upper mounting face.

C.G. Range (Lateral)

Left of helicopter centerline, 1.82 in.
Right of helicopter centerline, 1.82 in.

Leveling Means

Top face of flanges under seat

Maximum Weight	3100 lb Gross weights of up to 3500 lb are permitted for Cargo Hook operations in accordance with Hiller FAA approved "Model UH-12E-L Helicopter Flight Manual 3500 lb Gross Weight Operation with Cargo Hook" dated April 4, 1966 or later FAA approved revisions. Operations above 3100 lb gross weights are in restricted category under FAR 133.
Number of Seats	3 (53)
Maximum Baggage	See loading instructions in Flight Manual.
Fuel Capacity	Total 46, 66, or 86 gal. One mail tank 46 gal. (82.9) one or two optional auxiliary fuel tanks installed per Hiller Service Bulletin 2008, 20 gal. each (85.8) See NOTE 1 for unusable fuel data.
Oil Capacity	Engine oil - 8 qt (94) or 11 qt (94) with auxiliary fuel tanks installed Transmission oil - 4.5 qt (94)
Other Operating Limitations	FAA-Approved Rotorcraft Flight Manual
Rotor Blade and Control	(Measured with respect to the mast) (Note: When the mast is vertical, the helicopter is 1° movements nose up)
Main Rotor Blade Collective Travel	+8 1/2° ±0.1° to +20 1/2° ±1/4°
Wobble Plate Cyclic Travel	Lateral 7° 45' ±1/4° left and 4° 42' ±1/4° right Longitudinal 9 1/4° ±1/4° forward and aft
Tail Rotor Blade Flapping	+17° to -17°
Collective Pitch	+20° to 4° with 25200-3 Gearbox +16° to –4° with 25300-5 Gearbox

Horizontal Stabilizer Setting	Configuration(With helicopter level)	
	Skid Gear	-4° ±1°

Serial Nos. Eligible	Model UH-12E; 942, 954, 2001 through 2166, 2172 through 2229, 2233 through 2241, 2246 through 2248, 2253 through 2255, 2257 through 2282, 2286 through 2292, 2294 through 2306, 2309 through 2499 limitations.
Certification Basis	CAR 6 dated December 20, 1956, including Amendments 6-1, 6-2, and 6-3. Compliance with Amendments 6-4 required for rotor and control systems only. Type Certificate 4H11 reissued September 18, 1963. Date of Application of Type Certificate February 28, 1961.
Production Basis	None. Before original airworthiness certification of each aircraft manufactured subsequent to April 23, 2003, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics. In the event of an application for a standard airworthiness certificate or, if an applicant intends to produce new aircraft under 14 CFR § 21.183 (d), and the applicant is manufacturing, building, or assembling to another person's type certificate, the applicant must provide written evidence of permission from the type

certificate holder. Conduct of such activity without written evidence of permission may be a violation of 49 U.S.C. § 44704(a)(3).

Equipment — The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification basis) must be installed in the helicopter for certification. Hiller Report 63-76, "Model UH-12E-L Master Equipment List" contains a list of all required equipment that must be installed as well as optional equipment installations approved by the FAA.

Data Pertinent to all Models

NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions must be in each helicopter at the time of original certification and at all times thereafter (except in the case of operators having an approved weight control system). Ballast, when necessary, must be carried in accordance with Loading Instructions in the Approved Rotorcraft Flight Manual.

Fuel and Oil capacities as indicated are total tank capacities over and above "Trapped Fuel and Oil." The main fuel tank capacity includes "Unusable" fuel of 0.3 gallon, which cannot be used safely in all flight attitudes, and which must be included in the empty weight. Unusable fuel in the optional auxiliary fuel tanks is negligible.

NOTE 2. The following placard must be installed on the Pilot's Checklist:
"This Helicopter must be operated in compliance with the operating limitations specified in the FAA-Approved Rotorcraft Flight Manual."

For additional placards, see the Approved Flight Manual.

NOTE 3. The retirement times of critical parts are listed in the following tables. These values of retirement or service life cannot be increased without FAA Engineering approval.

Life limited components interchanged between UH-12 series models or configurations must be restricted to the lowest service life indicated for the models or configurations affect. Life limited components removed at retirement are to be destroyed or conspicuously marked to prevent inadvertent return to service.

MODEL UH-12E
FINITE LIFE COMPONENT

NOMENCLATURE	PART NO.	REPLACEMENT PERIOD HOURS
Rotors and Drives		
Blade Assy., main rotor (Parsons)	2253-1101-04	2500 NOTE A
Blade Assy., main rotor (Parsons)	2253-1101-03	2500
Blade Assy., main rotor	53200-03	6670 NOTE H
Shaft Assy., output speed decreaser	25202	5790
Shaft Assy., output speed decreaser	25202-5	5790
Plate set, main rotor tension-torsion (component of 51430-1 and 51430-3 assembly)	51430-1, -3	3350
Hub Assy., main rotor (Service Bulletin No. 2014 not complied with)	51437-9	1540
Hub Assy., main rotor (Service Bulletin No. 2014 complied with)	51437-9 NOTE B	2500
Hub Assy., main rotor	51437-11, -901	2500
Hub Assy., main rotor	51437-11-911	2500
Pin, main rotor outboard tension torsion	51452 or -1	643

MODEL UH-12E
FINITE LIFE COMPONENT (continued)

NOMENCLATURE	PART NO.	REPLACEMENT PERIOD HOURS
Fork, main rotor blade root	52110-3	2500
Drag strut, main rotor blade	52120, -5	2500
Drag strut, main rotor blade	52120-7	2500 NOTE H
Bar Assy., tail rotor tension-torsion	55054	12500
Blade Assy., tail rotor (3-place model)	55073 (All Dash No's)	5400
Blade Assy., tail rotor (4-place model)	55073 (All Dash No's)	3240
Power Plant		
Snubber Assy., engine, longitudinal	63192-7, -11	4650
Snubber Assy., engine, lateral	63192-5, -9	4650
Bracket, engine snubber	63197	6160
Bracket, engine snubber	63197-5	9850
Attaching bolts, engine snubber (used to attach P/N 63197 bracket to deck and Lord mount)	AN3	600
Gimbal outer engine mounting	63309	6300
Gimbal outer engine mounting	63309	5480 Note H
One way clutch (Borg-Warner)	BWX132591	375 Note C
One way clutch (Borg-Warner)	BWX132815	375 Note C
Collective and Cyclic Controls		
Push rod Assy., Collective pitch incidence	31113-13 or 31333	13400 Note H
Flyweight collective pitch ballast	31197-3	2500
Bellcrank, collective control	31318	15000
Tube, collective control	31319-3	23500
Shaft, dual collective control	31321	10400
Block Assy., collective stick	31344, 31344-3, -9, or 31344-5	6400
Push rod, collective control	31365	8150 Note H
Arm, collective pitch blade incidence	31389	14500 Note H
Incidence Arm	31113-13 (Old style-Incs.Fafnir or Shafer Rod Ends)	13400 Note H
Incidence Arm	31333 WA7-75083-S1. (Heim Rod Ends on Condition)	13400 Note H
Arm Assy., collective and throttle controls (4-place model)	31403	21500
Scissor, cyclic control, lower	34141, or -5	275
Spar and Blade Assy., Control Rotor(all faired Assys.)		Note D
Fairing Blade Assy., Control Rotor	36003, 36129, -25	2500 Note F
Trunion, Control Rotor Hub	36116-4	5150 Note E
Cuff Assy., Control Rotor (used with faired Assy.)	36124	5150 Note G
Cuff Assy., Control Rotor (used with unfaired assy.)	36124	6860 Note G
Cuff Assy., Control Rotor (used with unfaired assy.)	36124	5550 Note H

NOTE A - The replacement period for blade assemblies S/N 4261 and subsequent is 6670 hours. The replacement period for blade assemblies S/N 3396 through S/N 4260 is extended to 6670 hours if these blades are returned to the manufacturer for installation of rolled-thread anti-node bar assembly P/N 2253-1124 before 2500 hours time in service.

NOTE B - The 2500 hour service life total includes service time prior to compliance with Hiller Aviation Service Bulletin No. 2014.

NOTE C - Unlimited life after incorporation of Hiller Aviation Service Bulletin No. 2027A.

NOTE D - Any unfaired control rotor blade assembly with an "R" after the part number (reworked per Hiller Aviation Service Bulletin 36-1, Revision 2) must be replaced upon attaining 2500 additional operating hours after rework.

NOTE E - 5150 hour limitation applicable to trunions used with control rotor fairing and blade assy. P/N 36003, 36129, or 36129-25.

NOTE F - If any of these part numbers are reworked in accordance with Hiller Aviation Service Bulletin 36-1, Revision 2, the part must still be replaced upon attaining a total time of 2500 hours regardless of the replacement period shown in Hiller Aviation Service Bulletin 36-1, Revision 2.

NOTE G - All control rotor cuff assemblies installed with control rotor blade assemblies (both faired and unfaired) with an "R" after the part number (reworked per Hiller Aviation Service Bulletin 36-1, Revision 2) must be replaced upon attaining the original retirement life, but not to exceed 2500 additional hours after rework.

NOTE H - These new or revised replacement periods are for the "Hiller Model UH-12E with new main rotor blades 53200-03." (See NOTE 13 for installation of main rotor blade 53200-03.)

MODEL UH-12E-L
FINITE LIFE COMPONENT

NOMENCLATURE	PART NO.	REPLACEMENT PERIOD HOURS
<u>Rotors and Drives</u>		
Main Rotor Blade Assy	53100	9250
Cuff Assy., main rotor blade	51456	7300
Rod, drag strut, main rotor blade	WS7-125083-14L-20B-083-856-HT	2080
Terminal, drag strut, main rotor blade	52122-3 & -5	2100
AN177 bolt, drag strut, main rotor blade		710
Hub Assy., main rotor	51455	6300
Rod Assy., drag strut	52125	57250
Terminal, drag strut, main rotor (cuff end)	52122-7	53600
Terminal, drag strut, main rotor (blade end)	52124-3	63750
Bolt, drag strut, main rotor (blade end)	NAS 1307-24	47600
Bar Assy., tension-torsion, tail rotor	55054	12500
Blade Assy., tail rotor	55073	5400
Bolt, drag strut, main rotor (cuff end)	NAS 1307-21	46850
Yoke, tail rotor	55046, -5, -9, -13, & -17	2500
<u>Power Plant</u>		

Shaft Assy., output	25202-5	5790
Engine outer gimbal ring	63309	6360
Collective and Cyclic Controls		
Bracket Assy., transmission, cyclic controls	33333-5	2120
Bracket Assy., transmission, cyclic controls	33333-1	150
Bracket Assy., transmission, cyclic controls	33344-1	150
Inner Ring Assy., (wobble plate)	34017	77980
Sleeve Assy., wobble plate cyclic controls	34038	42910
Gimbal ring, wobble plate	34008	73500
Yoke Assy., mixing cyclic & collective controls	30034	63850
Push-Pull Rod Assy., collective	31468	150
Arm, Mixing Assy., cyclic & collective controls	30036	10940
Rod end MDV46-16TMC		150
Rod end (Conair)	8127	69060

NOTE 4. These helicopters must be serviced and maintained in conformance with instructions given by Fairchild Hiller Corporation in the pertinent model inspection guide, repair handbook, and service and overhaul manuals.

NOTE 5. Deleted May 10, 1960.

NOTE 6. Model UH-12E 4-Place Configuration and 4-Place Modification Kit, Hiller Dwg. No. 10044, installed per Hiller Service Bulletin No. 2010. The following additional limitations apply: (For limits with accessories installed see FAA-Approved Rotorcraft Flight Manual.)

(a)	Airspeed limits	Configuration	V_{NE} (IAS)
		Skid Gear	95 mph (82 knots)
		Float Gear	86 mph (74 knots)
			Decrease V_{NE} 2.5 mph (2.2 knots) per 1000 ft above 5000 ft
(b)	C.G. range (Longitudinal)	Skid Gear	Sta. (79.5) to (84.8)
		Float Gear	Sta. (81.0) to (84.8)
(c)	No. seats	1 (25), 3 (53)	
(d)	Horizontal stabilizer P/N 37027	+3° (Measured with helicopter level)	

(e) Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. Hiller Report 60-60 "Model UH-12E (4-place) Master Equipment List" contains a list of all required equipment that must be installed as well as optional equipment installations approved by the FAA.

NOTE 7. UH-12E, 3- and 4-place configurations are eligible at 2800 pounds maximum weight when items specified by Hiller Service Bulletin No. 2031 are installed. See FAA-Approved Rotorcraft Flight Manual for operation limitations.

NOTE 8. Model UH-12E Helicopters (3- and 4-place configurations) may be converted to Model UH-12L or UH-12L4 by accomplishment of Hiller Service Bulletins No. 2040 (Dwg. 10060) and No. 2045 (Dwg. 10059) respectively.

NOTE 9. Model UH-12E Helicopters (3-place configuration only) may be converted to Model UH-12L by accomplishment of Hiller Service Bulletin No. 2039A (Dwg. 10060).

NOTE 10. The Type Certificate holder has demonstrated compliance with FAR 133.43 for the UH-12E Helicopters for Class B (Jettisonable Sling Load) Rotorcraft - Load Combination at a maximum overall weight of 3100 pounds and a maximum sling load of 1000 pounds, when modified to incorporate cargo hook installation per Hiller Dwg. 91012. The helicopter weight without sling load is not to exceed certificated weight of 2750 pounds (2800 pounds if Hiller Service Bulletin No. 2031 has been complied with per NOTE 7. of this document). For limitations see pertinent FAA-Approved Rotorcraft Flight Manual Revision and Rotorcraft- Load Combination Flight Manual to be submitted by applicant for external load operator's certificate in accordance with FAR Part 133.

NOTE 11. The Type Certificate holder has demonstrated compliance with FAR 133.43 for the UH-12E-L Helicopters for Class B (Jettison Sling Load) Rotorcraft - Load Combination at a maximum overall weight of 3500 pounds and a maximum sling load of 1000 pounds, when modified to incorporate cargo hook installation per Hiller Dwg. 91012. The helicopter weight without sling load is not to exceed certificated weight of 3100 pounds. For limitations see pertinent FAA-Approved Rotorcraft Flight Manual revision and Rotorcraft - Load Combination Flight Manual to be submitted by applicant for external load operator's certificate in accordance with Far 133

NOTE 12. Certain Model UH-12D helicopters may be converted to Model UH-12E in accordance with Hiller Drawing No. 10054, Revision B, or subsequent FAA-Approved revisions thereto. Refer to this drawing for serial numbers eligible for such conversion.

NOTE 13. The main Rotor Blades P/N 53200-03 may be installed on Hiller Model UH-12E by accomplishment of Hiller Service Bulletins No. 10-2 and No. 51-3. FAA-Approved Rotorcraft Flight Manual "Hiller Model UH-12E Helicopter with 53200-03 Main Rotor Blades" is required. The following limitations apply. (For limits with accessories installed, see FAA-Approved Rotorcraft Flight Manual "Hiller UH-12E Helicopter with 53200-03 Main Rotor Blades".)

(a)	Rotor limits and engine operating speeds	Power Off (Rotor Tach)	Power On (Engine Tach)
		Maximum 395 rpm Maximum 314 rpm	Maximum 3200 rpm Minimum (S.L. to 10,000 ft.) 3000 rpm (Above 10,000 ft increase minimum rpm by 20 rpm for each additional 1000 ft of altitude)
(b)	Airspeed limits	Configurations	V_{NE} (IAS)
		Skid Gear 2801 to 3100 pounds	75 mph (65 knots) decrease V_{NE} 2.5 mph (2.2 knots) per 1000 ft above 5000 ft
(c)	Altitude limits	Configuration	
		Skid Gear - 2800 lb Skid Gear-2801 to 3100 lb	S.L. to 15,000 feet S.L. to 7400 feet
(d)	C.G. Range	Configuration	
		Skid Gear 2800 pounds	Left of helicopter center line, 3.75 in. Right of helicopter center line, 1.85 in.
		3100 pounds	Left of helicopter center line, 3.40 in.

Right of helicopter center line, 1.85 in.

The variation in left lateral C.G. is a straight line interpolation between 2801 pounds and 3100 pounds.

(e)	C.G. Range (Longitudinal)	Configuration Skid Gear	Forward: Sta. (79.5) to 7000 feet; Sta. (80.1) above 7000 feet. Aft: Sta. (84.8)
(f)	Maximum Weight	3100 pounds	

NOTE 14. Any changes to the type design of this helicopter by means of an amended type certificate (TC), supplemental type certificate (STC), or amended STC, requiring instructions for continued airworthiness (ICA's) must be submitted through the project aircraft certification office (ACO) for review and acceptance by the Fort Worth -Aircraft Evaluation Group (FTW-AEG) Flight Standards District Office (FSDO) prior to the aircraft delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later as prescribed by Title 14 CFR 21.50. Type design changes (major repairs or alterations) by means of a FAA Form 337 (field approval) that require ICA's must have those ICA's reviewed by the field approving FSDO.

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